

REMARKS

Claims 16-20, 38-41 are pending in the present application. Claims 18, 39, and 41 are allowed. Claims 16, 17 and 38 are amended. Claims 16 and 38 are amended to recite "a dispatch layer between the packet routing layer and an IP layer." These features are supported at least on page 13, lines 24-26 and on page 14, lines 15-23 of the current specification. Claim 38 is also amended to recite "a tangible computer readable medium" and to clarify "the intermediate destination address." These features are supported at least on page 23, lines 5-15 of the current specification.

Claim 17 is amended to recite "a sixth mode of operation, responsive to the fifth mode of operation, in which the dispatch layer translates a source address in the second packet from the process address for the identified process to the destination address of the packet received from the client." These features are supported at least on page 12, lines 20-25, page 14, lines 10-12, and page 20, lines 25-30 of the current specification.

Amendments are made to the specification to include a computer program product as recited in claim 38 of the original patent application. No new matter has been added by any of the amendments to the claims or the specification. Reconsideration of the claims is respectfully requested.

I. Telephone Interview Summary

A telephone interview was conducted on August 18, 2005 with Examiner Cardone with regard to features of independent claims 16 and 38. The Examiner indicated that the rejections to claim 38 under 35 U.S.C. § 112, first paragraph, and the rejections to claim 19 and 40 under 35 U.S.C. § 112, second paragraph, should be withdrawn based on the proposed amendments. The Examiner also indicated that the proposed amendments to claim 38 potentially overcome the rejection under 35 U.S.C. § 101. However, further consultation with the 101 panel is required before an agreement can be reached with the Applicants' representative. Furthermore, Applicants' representative submitted that Lim fails to teach a dispatch layer that performs the first, second, and third mode of operation in a manner as recited in claims 16 and 38. The Examiner indicated that the proposed amendments made to independent claim 1 potentially overcome the Lim reference, but

further search and consideration is required before an agreement can be reached with the Applicants' representative.

II. 35 U.S.C. § 101, Claim 38

The Office Action rejects claims 38 under 35 U.S.C. § 101 as being directed towards non-statutory subject matter. This rejection is respectfully traversed. The Office Action states that the claim is not limited to statutory subject matter, because the claim is not limited to tangible embodiments. By this Response, claim 38 is amended to recite "a tangible computer readable medium." Thus, the claim is now limited to only tangible embodiments. Accordingly, Applicants respectfully request the withdrawal of the rejections to claim 38 under 35 U.S.C. §101.

III. 35 U.S.C. § 112, First Paragraph, Claim 38

The Office Action rejects claim 38 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Office Action states that claim 38 discloses a computer program product but the specification does not specifically disclose a program product. According to MPEP section 2163 I entitled "General Principles Governing Compliance with the "Written Description" Requirement for Applications," "it is well accepted that a satisfactory description may be in the claims or any other portion of the originally filed specification." Applicants respectfully submit that a computer program product for routing packets from a client to a selected process within a plurality of processes servicing a connection between the data processing system and the client is described in claim 38 of the original patent application. In addition, by this Response, an amendment is made to the specification to include a computer program product as recited in claim 38 of the original patent application. No new matter is added as a result of the amendments. Accordingly, Applicants respectfully submit that the written description requirement under 35 U.S.C. § 112, first paragraph, is therefore satisfied.

In addition, the Office Action rejects claim 38 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The Office Action states that the specification does not teach how a computer program product would route

packets within different layers. According to MPEP section 2164 entitled "The Enablement Requirement," "when the subject matter is not in the specification portion of the application as filed but is in the claims, the limitation in and of itself may enable one skilled in the art to make and use the claim containing the limitation. When claimed subject matter is only presented in the claims and not in the specification portion of the application, the specification should be objected to for lacking the requisite support for the claimed subject matter using Form Paragraph 7.44. See MPEP § 2163.06. This is an objection to the specification only and enablement issues should be treated separately." As discussed above, Applicants respectfully submit that the computer program product as recited in claim 38 is described in claim 38 of the original patent application. In addition, by this Response, an amendment is made to the specification to include a computer program product as recited in claim 38 of the original patent application. No new matter is added as a result of the amendments. Accordingly, Applicants respectfully request the withdrawal of the rejections to claim 38 under 35 U.S.C. § 112, first paragraph.

IV. 35 U.S.C. § 112, Second Paragraph

The Office Action rejects claim 19 and 40 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter, which applicants regard as the invention. This rejection is respectfully traversed. The Office Action states that claims 19 and 40, dependent upon claims 16 and 18, further defines the packet routing layer as the TCP layer but claims 16 and 18 already disclose a TCP layer. By this Response, claims 16 and 38 are amended to recite "a dispatch layer between a packet routing layer and an IP layer." Thus, claims 19 and 40 now properly define the packet routing layer as the TCP layer. Accordingly, Applicants respectfully request the withdrawal of the rejections to claims 19 and 40 under 35 U.S.C. § 112, second paragraph.

V. Allowable Subject Matter, Claims 18, 39, and 41

Applicants thank Examiner Cardone for the allowance of claims 18, 39, and 41. However, for the reasons set forth hereafter, Applicants respectfully submit that claims 16, 17, 19, 20, 38, and 40 are also directed to allowable subject matter and that the application is in condition for allowance.

VI. Obviousness-type Double Patenting

The Office Action rejects claims 16, 17, 19, 20, and 38 under the judicially-created doctrine of obviousness-type double patenting as being unpatentable in view of claims 1-5 of copending Application No. 10/717,007, which was filed November 19, 2003 and claims 1-6 of copending Application No. 10/713,343, which was filed November 14, 2003. Applicants have submitted herewith a terminal disclaimer under 37 CFR § 1.321, thus obviating the double patenting rejection. Applicants respectfully request that the rejection be withdrawn.

VII. 35 U.S.C. § 102(e), Alleged Anticipation, Claims 16, 17, 19, 20, and 38

The Office Action rejects claims 16, 17, 19, 20, and 38 under 35 U.S.C. § 102(e) as being allegedly anticipated by Lim et al. (U.S. Patent No. 6,718,550). This rejection is respectfully traversed.

Regarding claims 16 and 38, the Office Action states:

Regarding claims 16 and 38, Lim discloses a computer comprising:

a plurality of processes, wherein the plurality of processes service a destination address and have process addresses [Lim, col. 9, lines 10-35];

a packet routing layer, wherein the packet routing layer routes packets to the plurality of processes using a destination addresses within the packets [Lim, col. 5, lines 13-37 and col. 9, lines 27-62];

a dispatch layer between a TCP layer and an IP layer, wherein the dispatch layer has a plurality of modes of operation including: a first mode of operation in which the dispatch layer receives a packet from a client, wherein the packet includes the destination address [Lim, col. 6, lines 30-60 and col. 10, lines 1-62];

a second mode of operation, responsive to receiving the packet, in which the dispatch layer identifies a process within the plurality of

processes to service the client, wherein the process is an identified process [Lim, col. 7, lines 18-45];

a third mode of operation in which the dispatch layer translates the destination address to a process address for the identified process within the plurality of processes; and a fourth mode of operation, responsive to the third mode of operation, in which the packet is sent to the packet routing layer [Lim, col. 7, lines 37-45 and col. 8, lines 44-61]

Office Action dated June 24, 2005, page 5.

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. *In re bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed Cir. 1990). All limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 21 U.S.P.Q.2d 1031, 1034 (Fed Cir. 1994). Anticipation focuses on whether a claim reads on the product or process a prior art reference discloses, not on what the reference broadly teaches. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983). Specifically, Lim does not teach every element of the claimed invention arranged as they are in claims 16 and 38 of the present invention.

Amended independent claim 16, which is representative of amended claim 38 with regard to similarly recited subject matter, now recites:

16. A computer comprising:
 - a plurality of processes, wherein the plurality of processes service a destination address and have process addresses;
 - a packet routing layer, wherein the packet routing layer routes packets to the plurality of processes using a destination addresses within the packets;
 - a dispatch layer between the packet routing layer and an IP layer, wherein the dispatch layer has a plurality of modes of operation including:
 - a first mode of operation in which the dispatch layer receives a packet from a client, wherein the packet includes the destination address;
 - a second mode of operation, responsive to receiving the packet, in which the dispatch layer identifies a process within the plurality of processes to service the client, wherein the process is an identified process;
 - a third mode of operation in which the dispatch layer translates the destination address to a process address for the identified process within the plurality of processes; and

a fourth mode of operation, responsive to the third mode of operation, in which the packet is sent to the packet routing layer. (Emphasis added).

Lim does not teach the features emphasized above. As discussed in the Abstract, Lim teaches data structures, methods, and devices for reducing computing overhead by utilizing different invocations paths for same process and different process invocations in a distributed client/server based computing system. Calls to a servant that do not share the same process as the requesting client are routed through a transport layer, and calls to servant that do share the same process as the requesting client are passed directly to the servant, thereby bypassing the transport layer. Distinct remote and local method tables are provided to facilitate intelligent routing of requests. The appropriate method table for an object reference is intelligently selected based upon the location of the identified object.

However, Lim does not teach a dispatch layer that identifies a process within the plurality of processes to service a client responsive to receiving a packet and translates the destination address in the packet to a process address for the identified process within the plurality of processes. The Office Action alleges that Lim teaches these features at column 7, lines 37-45 and column 8, lines 44-61, which read as follows:

The identification of an appropriate subcontract in subcontract layer 36 may be thought of as the identification of a desired function that is unique to the subcontract. For example, a marshal function or an unmarshal function is defined for each subcontract. A subcontract marshal function is used by a stub to marshal an object referenced so that it may be transmitted to another address space, or domain. The object reference is typically processed by a transport mechanism in transport layer 38.

Lim, column 7, lines 37-45.

In general, a remote request must be routed through the client side and the server side as described above. The method call 62 is received, method table dispatch layer 24 is used to identify an appropriate subcontract prior to the selection of a transport to another domain. Through hardware 70, the marshaled request is transported to the server side where it is received on an end point which is a part of transport layer 38. An appropriate end point receives information transported across a wire, and information is dispatched from transport layer 38 to unmarshal the information it has received. The subcontract then dispatches the request to skeleton 31 which transforms the request into a specific format

required by the servant object 78. This path is shown by arrow 77, and is the path which may be taken by both remote and local requests. Lim, column 8, lines 44-61.

In the first section, Lim teaches that a subcontract marshal function may be identified in the subcontract layer that marshals an object reference so that it may be transmitted to another address space or domain. The object reference is processed by a transport mechanism in the transport layer. In the second section, Lim teaches how to route a remote request through the client and server side. When a method call is received, a method table dispatch layer first identifies an appropriate subcontract prior to a selection of a transport mechanism in the transport layer. The subcontract marshals the request and prepares it for transport to another domain. Figure 1b of Lim, which illustrates the different layers, is shown below:

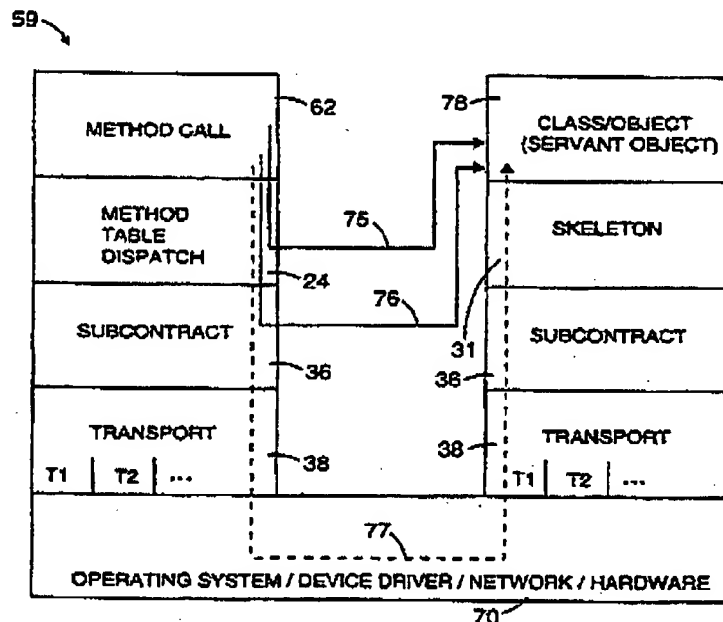


FIG. 1b

As shown in Figure 1b, method table dispatch layer 24 identifies an appropriate subcontract within subcontract layer 36 for marshalling the request before selecting a transport mechanism in transport layer 38. While the dispatch layer of Lim identifies a subcontract within the subcontract layer, the subcontract is not the same as a process within the plurality of processes to service a client. Rather, the subcontract is a function that is identified to marshal an object reference, so that the object reference may be

transmitted to another address space or domain. This is different from a process to service a client, such as a server daemon as described on page 4, lines 3-5 of the current specification, which is used to handle a website. Therefore, Lim does not teach a dispatch layer that identifies a process within the plurality of processes to service a client responsive to receiving a packet.

Even, *arguendo*, if Lim's subcontract is a process within a plurality of processes that services a client, Lim still does not teach a dispatch layer that translates the destination address in the packet to a process address for the identified process within the plurality of processes. The subcontract of Lim as described in the above sections does not translate the destination address of the packet to a process address for the identified process within the plurality of processes. To the contrary, Lim teaches in the above sections that the subcontract marshals an object reference so that it may be transmitted to another address space or domain. Marshalling of an object reference is not the same as translating a destination address in the packet to a process address. At column 7, lines 48-55, Lim teaches that information, i.e. the object reference or request, is converted into protocols appropriate to a given domain. Protocols may include Ethernet protocols and internet interoperable protocols (IIOPs). Protocols may even entail the use of electronic mail to transmit instructions to be implemented on a server. Thus, marshalling of an object reference merely converts information content into a protocol used by a given domain. Nowhere in the reference does Lim teach that marshalling involves translating a destination address in the packet to a process address as recited in claim 38 of the present invention. Therefore, Lim does not teach a dispatch layer that translates the destination address in the packet to a process address for the identified process within the plurality of processes, as recited in claim 38 of the present invention.

Even, *arguendo*, if Lim teaches a dispatch layer that translates the destination address in the packet to a process address for the identified process within the plurality of processes, Lim still does not teach a dispatch layer that both identifies the process to service a client and translates the destination address in the packet to a process address for the identified process. To the contrary, Lim teaches using two different layers as shown in Figure 1b: a method table dispatch layer 24 to identify a subcontract, and a subcontract in subcontract layer 36 to marshal an object reference to be transmitted to

another address space. Therefore, Lim also fails to teach a dispatch layer that identifies a process within the plurality of processes to service a client responsive to receiving a packet and translates the destination address in the packet to a process address for the identified process within the plurality of processes, as recited in claim 16 of the present invention.

With regard to independent claim 38, Lim does not teach translating, in a dispatch layer between a packet routing layer and an IP layer, the destination address to an intermediate destination address, wherein the intermediate destination address is an address for the selected process within the plurality of processes. As discussed above in arguments presented for claim 16, Lim only teaches converting information, such as an object reference, to protocols that is appropriate for a given domain, which is different from translating a destination address to a process address. Therefore, Lim also does not teach translating, in a dispatch layer between a packet routing layer and an IP layer, the destination address to an intermediate destination address, wherein the intermediate destination address is an address for the selected process within the plurality of processes. The protocol is different from an intermediate destination address in that the protocol is not an address for a selected process within a plurality of processes. Rather, the protocol encompasses a format to which the information is converted, such that a given domain may understand the information. The protocol is not same as an intermediate destination address that is an address for a selected process. Therefore, Lim also does not teach the features of claim 38 of the present invention.

In view of the above, Lim does not teach each and every feature of claims 16 and 38. At least by virtue of their dependency on claim 16, Lim does not teach the features of dependent claims 17, 19, and 20. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 16, 17, 19, 20, and 38 under 35 U.S.C. § 102(e).

In addition, Lim does not teach the specific features of claims 17, 19, and 20 of the present invention. For example, with regard to dependent claim 17, Lim does not teach a dispatch layer that receives a second packet from the identified process and translates a source address in the second packet from the process address for the identified process to the destination address of the packet received from the client. The

Office Action alleges that Lim teaches these features at column 7, lines 37-45, and at column 8, lines 44-61, which is reproduced above.

However, in these sections and as illustrated in **Figure 1b**, Lim merely teaches that when information is received, the information is dispatched from transport layer 38 to subcontract layer 36. The subcontract layer 36 provides functionality to partially unmarshal the information it has received and dispatches the request to skeleton 31 to transform the request into a specific format required by servant object 78. Lim does not teach translating a source address in the second packet from the process address for the identified process to the destination address of the packet received from the client. Unmarshalling of the information is not the same as translating a source address in the second packet from a process address to a destination address. As discussed above in arguments presented for claims 16 and 38, marshalling merely refers to converting the information, such as an object reference, to a protocol that is appropriate for a given domain. Conversely, unmarshalling converts from a protocol of the given domain to an object reference. However, nowhere in the reference does Lim teach that unmarshalling involves translating a source address in the second packet from the process address for the identified process to the destination of the packet received from the client. Therefore, Lim does not teach translating a source address in the second packet from the process address for the identified process to the destination address of the packet received from the client.

Even, *arguendo*, if Lim teaches translating a source address in the second packet from the process address for the identified process to the destination address of the packet received from the client, Lim still does not teach a dispatch layer that both receives a second packet from the identified process and translates a source address in the second packet from the process address for the identified process to the destination address of the packet received from the client. To the contrary, Lim teaches using three different layers: a transport layer 38 that receives the packet, a subcontract layer 36 that unmarshals the information, and a skeleton layer 31 that transforms the request into a specific format required by servant object. Therefore, Lim does not teach a dispatch layer that receives a second packet from the identified process and translates a source address in the second

packet from the process address for the identified process to the destination address of the packet received from the client, as recited in claim 17 of the present invention.

In view of the above, Lim does not teach the specific features of claims 17, 19, and 20 in addition to the features of their independent claim 16. Accordingly, the rejection of dependent claims 17, 19, and 20 under 35 U.S.C. § 102(e) has been overcome.

VIII. Conclusion

It is respectfully urged that the subject application is patentable over Lim and is now in condition for allowance.

The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,



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